

Claims:

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1. A method for controlling a fluid pump, comprising:  
in response to an alarm condition, reducing a speed of the fluid pump; and  
maintaining the new speed.

2. The method of claim 1, comprising:  
repeating the steps of reducing and maintaining until the alarm condition  
goes away.

3. The method of claim 2, wherein the fluid being pumped by the fluid  
pump is blood.

10 4. The method of claim 2, wherein in the step of reducing, the speed of the  
fluid pump is reduced by a predetermined percentage of the fluid pump speed.

5. The method of claim 2, wherein in the step of reducing, the speed of the  
fluid pump is reduced by a predetermined number of revolutions per minute.

15 6. The method of claim 2, wherein the alarm condition is based on a fluid  
pressure which the fluid pump influences, exceeding a critical level.

7. The method of claim 2, wherein the alarm condition is based on a flow  
rate which the fluid pump influences, exceeding a critical level.

8. The method of claim 1, wherein in the step of reducing, the speed of the  
fluid pump is reduced to a predetermined speed.

20 9. The method of claim 1, comprising:

generating an alert to indicate that the fluid pump speed has been automatically reduced in response to an alarm condition.

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5        10. A method for controlling a fluid pump, comprising:  
         establishing a fluid flow rate setpoint;  
         receiving fluid flow data;  
         automatically adjusting a speed of the fluid pump to maintain the measured  
fluid flow rate at the fluid flow rate setpoint;  
         detecting an adjustment by the user to the fluid pump speed;  
         in response to a detected user adjustment of the fluid pump speed, adopting  
10       the fluid flow rate at the user adjusted fluid pump speed, as the fluid flow rate  
         setpoint.

15       11. The method of claim 10, wherein the fluid flow rate setpoint is  
         established by adjusting the speed of the fluid pump until a desired fluid flow rate  
         is achieved, and then adopting the fluid flow rate corresponding to the present  
         fluid pump speed as the new fluid flow rate setpoint.

20       12. The method of claim 10, comprising:  
         in response to an alarm condition, reducing a speed of the fluid pump to a  
         new speed, and adopting the fluid flow rate corresponding to the new speed, as the  
         fluid flow rate setpoint.

         13. The method of claim 12, wherein the fluid pump is a second fluid  
         pump, and a first fluid pump is controlled based on performance of the second  
         fluid pump, comprising:  
         receiving an indication of a speed of a second fluid pump; and

controlling a speed of the first fluid pump based on the received indication, to maintain a speed of the first fluid pump at a specified percentage of the speed of the second fluid pump.

- 5           14. A method for controlling a fluid pump, comprising:  
          establishing a fluid pressure setpoint;  
          receiving fluid pressure data;  
          automatically adjusting a speed of the fluid pump to maintain the measured  
fluid pressure at the fluid pressure setpoint;  
          detecting an adjustment by the user to the fluid pump speed;  
10          in response to a detected user adjustment of the fluid pump speed, adopting  
the pressure at the user adjusted fluid pump speed, as the fluid pressure setpoint.

- 15         15. The method of claim 14, wherein the fluid pressure setpoint is  
established by adjusting the speed of the fluid pump until a desired fluid pressure  
is achieved, and then adopting the fluid pressure corresponding to the present fluid  
pump speed as the new fluid pressure setpoint.

- 20         16. The method of claim 14, comprising:  
          in response to an alarm condition, reducing a speed of the fluid pump to a  
new speed, and adopting the fluid pressure corresponding to the new speed, as the  
fluid pressure setpoint.

17. The method of claim 16, wherein the fluid pump is a second fluid  
pump, and a first fluid pump is controlled based on performance of the second  
fluid pump, comprising:  
          receiving an indication of a speed of a second fluid pump; and

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controlling a speed of the first fluid pump based on the received indication, to maintain a speed of the first fluid pump at a specified percentage of the speed of the second fluid pump.

5           18. A method for controlling a first fluid pump, comprising:  
receiving an indication of a speed of a second fluid pump; and  
controlling a speed of the first fluid pump based on the received indication,  
to maintain a speed of the first fluid pump at a specified percentage of the speed of  
the second fluid pump.

10           19. A perfusion system, comprising:  
means for pumping fluid; and  
means for reducing a speed of the means for pumping fluid to a new speed  
in response to an alarm condition, and maintaining the new speed.

15           20. The system of claim 19, comprising:  
means for reducing the speed of the means for pumping fluid until the  
alarm condition ceases.

21. The system of claim 20, wherein the means for reducing reduces the  
speed by a predetermined percentage.

20           22. The system of claim 20, wherein the means for reducing reduces the  
speed by a predetermined number of revolutions per minute.

23. The system of claim 20 wherein the means for reducing reduces the  
speed to a predetermined speed.

24. The system of claim 19, comprising:

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means for generating an alert to indicate that the speed has been automatically reduced in response to an alarm condition.

25. A perfusion system, comprising:

means for pumping fluid;

5 means for establishing a fluid flow rate setpoint;

means for receiving fluid flow data;

means for automatically adjusting a speed of the means for pumping fluid to maintain the measured fluid flow rate at the fluid flow rate setpoint;

means for detecting an adjustment by the user to the speed; and

10 means for adopting the fluid flow rate at the user adjusted speed, as the fluid flow rate setpoint.

26. The system of claim 25, comprising:

means for reducing a speed of the means for pumping fluid to a new speed in response to an alarm condition; and

15 means for adopting the fluid flow rate corresponding to the new speed, as the fluid flow rate setpoint.

27. A perfusion system, comprising:

means for pumping fluid;

means for establishing a fluid pressure setpoint;

20 means for receiving fluid pressure data;

means for automatically adjusting a speed of the means for pumping fluid to maintain the measured fluid pressure at the fluid pressure setpoint;

means for detecting an adjustment by the user to the speed; and

25 means for adopting the pressure at the user adjusted speed as the fluid pressure setpoint.

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28. The system of claim 27, comprising:  
means for reducing a speed of the means for pumping fluid to a new speed,  
in response to an alarm condition; and  
means for adopting the fluid pressure corresponding to the new speed, as  
5 the fluid pressure setpoint.

29. A perfusion system, comprising:  
first means for pumping fluid;  
second means for pumping fluid;  
means for receiving an indication of a speed of the first means for pumping  
10 fluid; and  
means for controlling a speed of the second means for pumping fluid based  
on the received indication, to maintain a speed of the second means for pumping  
fluid at a specified percentage of the speed of the first means for pumping fluid.

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